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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/743,307	12/23/2003	Qi Zhang	P-6215-US	5556
49444	7590	07/13/2007		
PEARL COHEN ZEDEK LATZER, LLP 1500 BROADWAY, 12TH FLOOR NEW YORK, NY 10036			EXAMINER CHAVIS, JOHN Q	
			ART UNIT 2193	PAPER NUMBER
			MAIL DATE 07/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/743,307

**Applicant(s)**

ZHANG ET AL.

**Examiner**

John Chavis

**Art Unit**

2193

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12/23/03 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. The claimed invention in claims 9-14 and 18-23 is directed to non-statutory subject matter. Abstract intellectual concepts are not patentable as they are the basic tools of scientific and technological work; but, a practical application of the concept to produce a useful result is patentable. An abstract idea is embodied or a practical application or concrete when it is utilized in an invention that is a process, machine, manufacture or composition of matter under 35 USC 101, and is useful when it has utility. Where the claim covers any and every possible way that the steps may be performed, this is more likely to be a claim to the abstract idea itself rather than a practical application of the idea. The present claims appear to be directed toward merely generating a number since it does not appear that a computer or a processor of any kind is required. There appear to be transformation of one form to another (one form of a number to another form of a number). However, the number that is generated does not appear to be utilized. Claims 18-23 comprises a storage medium and mentions a computer; however, the final outcome of the conversion still appears to be merely generating a number that is not utilized. Therefore, the claims are non statutory.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2193

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yates (2002/0032718) and further in view of Zohar (2002/087609).

What is claimed is:

Yates/Zohar

1. A method comprising: identifying  
In a first sequence of instructions  
Associated with a source architecture...

See sects. 0006-0007, 0167 and 0345.

Translating the  
a first sequence of instructions  
~~associated with a source architecture~~  
into a second sequence of  
instructions associated with a target  
architecture,

See Yates' title, the abstract and sect.  
0005.

~~wherein said first sequence includes  
one or more floating point control  
instructions and said second  
sequence does not include a floating  
point control instruction, ...and~~

See figs. 3A and fig. 21 (items 183 and 185). Although the second sequence is considered to provide for translations to integers that do not include floating point controls (via sect. 0444 and 0529 based on different address sizes in sects. 0169, 0268 and 0345 and the efficiency of sect. 0537), assuming this is not the case, the feature is provided Zohar via the title and the abstract and figs. 2-4 to provide efficient translations between different units. Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to enable the feature in Yates system for the same reason since different systems with different precision registers can also be rounded from a floating point value to an integer value to accommodate for the differences in register sizes.

wherein results produced by executing said second sequence on a processor that complies with said target architecture are substantially the same as results produced by executing said first sequence on a processor that complies with said source architecture.

Yates sect. 0116 provides for equivalent settings to be used for translations. Therefore, results would inherently be substantially the same.

2. The method of claim 1, wherein said second sequence includes an instruction to round an initial floating point number to a first floating point number using round to zero rounding mode, regardless of a rounding mode setting of the target architecture.

See the above references to Yates.

3. The method of claim 1, wherein said first sequence of instructions and said second sequence of instructions are binary code.

Computers function in binary code and Yates provides for the features via fig. 12 and 58A.

4. The method of claim 1, further comprising: identifying in said first sequence a rounding mode of one of said one or more floating point control instructions.

See Yates' sects. 3-5 and 8-9.

Claim 5 is rejected as claim 1 above.

As per claims 6-26, see the rejection of claim 2 and Zohar's figs 4 and 7-8 in which comparisons and modes are inherent to determine a starting point for translations, see Zohar's figs. 7-8.

5. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Chavis whose telephone number is (571) 272-3720. The examiner can normally be reached on M-F, 9:00am-5:30pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jc



John Chavis  
Primary Examiner AU-2193